



CORPORATE – POCATELLO OFFICE

August 3, 2015

Mary Kauffman
Caribou-Targhee National Forest
1405 Hollipark Dr.
Idaho Falls, Idaho 83401

**Subject: Biological Selenium Removal Treatment Technology
Fluidized Bed Bioreactor Pilot Study
June 2015 Progress Report**

Dear Mary,

This progress report summarizes key activities in June 2015 associated with the fluidized bed bioreactor (FBR) pilot study located near Hoopes Spring. This pilot study is being conducted as part of the Smoky Canyon Mine Remedial Investigation/Feasibility Study (RI/FS) to provide information on the effectiveness of the active biological treatment system in removing selenium and other COPCs from South Fork Sage Creek Springs and Hoopes Spring. Operation and monitoring of the pilot study follows the *Pilot Study Work Plan and Sampling and Analysis Plan (Work Plan/SAP)*, *Biological Selenium Removal Treatment Technology Fluidized Bed Bioreactor* (prepared by Formation Environmental, dated September 2014, with revised text and tables dated March 5, 2015).

Activities at the treatability study pilot plant during June were a continuation of addressing the hydraulic deficiency from the aeration tank to the sand filter encountered in April and May. The plant was offline the majority of June while a booster pump was installed between the aeration tank and the sand filter (as per Work Plan/SAP Addendum 02). During the down time, additional system maintenance was performed in preparation for restart including:

- Replacing the air compressor coils,
- Re-working the HS-C1 inlet structure to minimize algal growth,
- Repairs to main power line from the mine,
- Finishing installation of operation monitoring system (including surveillance cameras), and
- Grading and reseeding of disturbed areas around the pilot building.

The restart process was initiated on June 25. Bench testing of the FBR is still ongoing to build baseline start up and performance data. The system had not yet reached steady state operation at the end of June.

Identification of Deliverables and Data Transmittals

No analytical or field data were collected in June under the FBR Work Plan/SAP, and as of this report all laboratory data have been received (the most recent results were submitted with the April monthly report).

FBR Work Plan/SAP Addendum 01, which provides additional monitoring requirements to be implemented when monitoring is resumed, was submitted electronically to the Forest Service for review on May 29, 2015. Agency comments were provided on June 29, 2015, and the Final Addendum 01 is due to the Agencies no later than July 30, 2015. Responses to comments were provided to the Agencies on July 8, 2015.

FBR Work Plan/SAP Addendum 02, which provides details for the aeration tank booster pump, was submitted electronically to the Forest Service for review on June 16, 2015. The Forest Service approved Addendum 02 as final on June 18, 2015.

To support design of Phase II of the pilot study, a "pilot within a pilot" (ultrafiltration/reverse osmosis [UF/RO] + FBR units) has been proposed to the agencies. Agency comments on the initial submittal were provided to Simplot on July 7, and a revised Work Plan was submitted to the Agencies on July 8, 2015.

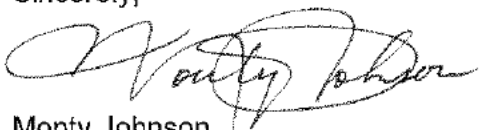
Upcoming Activities

The following activities associated with the fluidized bed bioreactor pilot study are scheduled through August 2015:

- Startup activities will continue through the second week of July. It is anticipated that routine monitoring (per the changes outlined in Addendum 01) will resume the week of July 13.
- The small UF/RO and mini FBR units have been delivered to the site.
- FBR Work Plan/SAP Addendum 01 will be revised and submitted to the Agencies as final by July 30, 2015.

Please contact me if there are questions regarding this monthly progress report.

Sincerely,



Monty Johnson
Environmental Engineering Manager

cc:

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